

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claims 1, 3, 5, 7, 10-12 and 13-20** are rejected under 35 U.S.C. 102(e) as being anticipated by **Yasuhara Pub. No. US 2003/0053638 A1**.

Regarding claim 1,

In **Figure 9**, Yasuhara teaches an acoustic device in Figure 9, comprising: a plurality of sound sources (see *paragraph [0054]*);

a first output unit (10,11) for outputting sound based on sound signals from the sound sources;

a first operation unit capable of turning on a power supply to the acoustic device (see discussion of "21" in *paragraph [0050]*, also see figure 9);

and a second output unit (12,13) for outputting sound based on sound signals from the sound sources,

a second operation unit capable of turning on the power supply to the acoustic device (para [0057] teaches that when a DVD is inserted into DVD player “4”, the rear system is turned on, thus reading DVD player “4” as the “second operation unit”; additionally para [0047] teaches that “22” in figure 3 also operates to activate the rear system of the audio device, therefore also reading on the “second operation unit”);

a mode setting unit (*“ 23” operates to change the operating mode of the acoustic device*) responding to a predetermined operation for switching and setting a first mode, in which the sound based on the sound signals from one of the sound sources are output from the first output unit (see “front control mode” in paragraph [0051]),

and a

second mode, in which while the sound based on the sound signals from one of the sound source are being output from the first output unit (10), the sound based on the sound signals from another sound source are output from the second output unit (12,13; see para [0122], as well as paragraph [0013]);

a control unit (“80” in figure 9) for controlling the mode setting unit (23) to set the first mode or the second mode when the power supply to the acoustic device is turned on by the first operation unit,

and controlling the mode setting unit (23) to set the second mode and

controlling the first output unit to be in a muted state when the power supply to the acoustic device is turned on by the second operation unit (22) (para [0122] teaches that If the rear system is turned on with the press of the rear power switch **22** in the 4-

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speaker state and the rear audio source is different from the front audio source, the two rear speakers **11** are disconnected, i.e., “muted”, thus implementing a 2-speaker state in which only the two front speakers 10 are connected to the front audio source).

Regarding claim 3,

In **Figure 9**, Yasuhara teaches an acoustic device comprising: a plurality of sound sources (*see paragraph [0054]*);

a first output unit (10,11) for outputting sound based on sound signals from the sound sources, including a first switch (“93” in [0127]) which is capable of turning on a power supply to the acoustic device;

and a operation unit (21) which is capable of turning off the power supply to the acoustic device (see discussion of “21” in paragraph [0050]);

and a second output unit (12,13) for outputting sound based on sound signals from the sound sources,

a mode setting unit (“23” *operates to change the operating mode of the acoustic device*) setting either one of a first mode, in which the sound based on the sound signals from one of the sound sources are output from the first output unit (see “front control mode” in paragraph [0051]),

and a

second mode, in which while the sound based on the sound signals from one of the sound source are being output from the first output unit (10), the sound based on

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the sound signals from another sound source are output from the second output unit (12,13; see para [0122]), as well as paragraph [0013]);

an external connection unit ("6" in figure 1, or "85" in figure 9) for externally connecting an electronic device (4) which is capable of turning on a power supply to the acoustic device (para [0057] teaches that when a DVD is inserted into DVD player "4", the rear system is turned on, thus reading DVD player "4" as the "electronic device"; additionally para [0047] teaches that "22" in figure 9 also operates to activate the rear system of the audio device, therefore also reading on the "electronic device");

and

a control unit (80), for controlling the mode setting unit to set the first mode or the second mode when the power supply to the acoustic device is turned on by the operation unit, and controlling the mode setting unit to set the second mode and controlling the first output unit to be in a muted state when the power supply to the acoustic device is turned on by the electronic device (para [0122] teaches that If the rear system is turned on with the press of the rear power switch **22** in the 4-speaker state and the rear audio source is different from the front audio source, the two rear speakers **11** are disconnected, i.e., "muted", thus implementing a 2-speaker state in which only the two front speakers 10 are connected to the front audio source).

Regarding claim 5,

In *paragraph [0042-0043]*, Yasuhara teaches an acoustic device according to claim 3, wherein the power ON demand signal obtained through the external connection

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unit is output from the electronic device in response to the power ON of the electronic device.

Regarding claim 7,

In *paragraph [0057]*, Yasuhara teaches an acoustic device according to claim 3, wherein the power ON demand signal obtained through the external connection unit is output from the electronic device in response to the insertion of a recording medium into the electronic device.

Regarding claim 10,

In *paragraph [0041]*, Yasuhara teaches an acoustic device according to claim 1, wherein the control unit causes a display unit to display power ON information indicating that the power source is turned ON, when the power source of the acoustic device is turned ON in the second mode while the power source is OFF.

Regarding claim 11,

In *paragraph [0041]*, Yasuhara teaches an acoustic device according to claim 3, wherein the control unit causes a display unit to display power ON information indicating that the power source is turned ON, when the power source of the acoustic device is turned ON in the second mode while the power source is OFF.

Regarding claim 12,

Yasuhara teaches an acoustic device according to claim 10, further comprising: a last information storage unit for storing, when the power source of the acoustic device is turned OFF, the sound source information relating to the sound source of the sound based on the sound signals being output by the first output unit just before the OFF of the power source, as last sound source information, *see paragraph [0058]*,

wherein *paragraph [0094-0095]* teach that the control unit causes the display unit to display the last sound source information stored in the last information storage unit, as the power ON information, when the power source is turned ON in the second mode while the power source is OFF.

Regarding claim 13,

Yasuhara teaches an acoustic device according to claim 11, further comprising: a last information storage unit for storing, when the power source of the acoustic device is turned OFF, the sound source information relating to the sound source of the sound based on the sound signals being output by the first output unit just before the OFF of the power source, as last sound source information, *see paragraph [0058]*,

wherein *paragraph [0094-0095]* teaches that the control unit causes the display unit to display the last sound source information stored in the last information storage unit, as the power ON information, when the power source is turned ON in the second mode while the power source is OFF.

Regarding claim 14,

Yasuhara teaches a vehicular audio system, comprising:

A body device ("88" in figure 9) arranged on a front side of a vehicular compartment, as *broadly claimed*;

a plurality of sound sources (see *paragraph [0054]*);

a front operation unit for operating the body device and turning on a power supply to the body (see "21" in figure 9);

a rear operation unit for operating and turning on the power supply to the body (para [0047] teaches that "22" in figure 1 also operates to activate the rear system of the audio device, therefore also reading on the "rear operation unit");

a first sound output unit (10,11) for outputting sound based on sound signals from one of the sound sources;

an external electronic device (para [0057] teaches that when a DVD is inserted into DVD player "4", the rear system, which is part of the vehicular audio system, is turned on, thus reading DVD player "4" as the "external electronic device") connected with the body device and capable of turning on a power supply to the vehicular audio system;

where the body device responds to predetermined operation from at least one of the front operation unit (21), rear operation unit (22), and the external electronic device (4)

a remote operation unit (14) for operating the rear controller (3) of the acoustic device, reading on “for operating the acoustic device remotely”;

a first mode, in which the sound based on the sound signals from one of the sound sources are output from the first output unit (see “front control mode” in paragraph [0051]),

and a

second mode, in which while the sound based on the sound signals from one of the sound source are being output from the first output unit (10), the sound based on the sound signals from another sound source are output from the second output unit (12,13; see para [0122]), as well as paragraph [0013]);

wherein a control unit (“23” in figure 9) for controlling the body device to set the first mode or the second mode when the power supply to the acoustic device is turned on by the front operation unit,

and controlling the body device to set the second mode and

controlling the first output unit to be in a muted state when the power supply to the vehicular audio system is turned on by the rear operation unit or external electronic device (22) (para [0122] teaches that If the rear system is turned on with the press of the rear power switch 22 in the 4-speaker state and the rear audio source is different

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from the front audio source, the two rear speakers 11 are disconnected, i.e., “muted”, thus implementing a 2-speaker state in which only the two front speakers 10 are connected to the front audio source).

Regarding claim 15,

Yasuhara teaches a speaker output switching unit (“92” in figure 9) for selecting at least one sound source (“82” – “85” in figure 9) for output from the first output unit ([see paragraph [0124]);

A headphone output switching unit (included in “788” in figure 9 as a function of enabling the rear unit (“3” in figure 1)) for selecting a sound source for output from the second output unit (“12” and “13” in figure 1);

A first mute circuit, as claimed (see disconnect of speaker “11”, as discussed in [0122]);

A second mute circuit, as claimed (see disconnect of headphones “12” and “13” as discussed in [0121]);

A display unit (“28” and “29” in figure 9) for displaying information;

And a microcomputer (“80” in figure 9) for controlling the body device (“88”).

Regarding claim 16,

Yasuhara teaches that the microcomputer comprises:

A mode setting storage unit, comprising:

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A first mode setting memory for storing a set content, *as broadly claimed*, of the first mode (see paragraph [0094]);

A second mode setting memory for storing a set content, *as broadly claimed*, of the second mode (see paragraph [0110]);

And a last information storage unit for storing, just before the body unit is turned OFF, a sound source relating to the sound source of the last sound signals coming from the sound source that was output from the first output unit (see paragraph [0095]);

A display control unit for controlling the display unit (see buttons in Figure 5);

A control unit for controlling the microcomputer (see buttons in Figure 3);

A mute control unit for controlling the first mute circuit and second mute circuit on the basis of content of first mode and second modes (see paragraphs [0121-0122]).

Regarding claim 17,

Yasuhara teaches that when the second mode is set and the body device is turned ON in response to a power ON demand signal from the rear operation unit or external electronic control device while the body device (“88” in figure 9) is OFF, the display unit displays information regarding the sound signals coming from the sound sources set in the muted state by the first mute circuit (even in 2-speaker state, the “front” display in Figure 5 indicates the sound source of the signals, *special attention* to the teaching that in 2-speaker state, the rear speakers are muted from producing audible signals from the source which is indicated [0122].)

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Regarding claim 18,

Yasuhara teaches that the muted state of speaker “11” is reversed dependent upon the sound source for the rear controller (“3” in figure 1) matching the sound source for the front unit (“2” in figure 1), interpreted as corresponding to “the muted state is releasable by the operation of the front operation unit”.

Regarding claim 19,

Yasuhara teaches that the external electronic device (“4” in figure 1) is arranged on the rear side of the vehicular compartment.

Regarding claim 20,

Yasuhara teaches that the muted state of speaker “11” is reversed dependent upon the sound source for the rear controller (“3” in figure 1) matching the sound source for the front unit (“2” in figure 1), all operations being ultimately controlled by control unit (“80” in figure 9), therefore said disclosure is interpreted as corresponding to “the muted state is releasable by the control unit”.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 2, 4 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Yasuhara Pub. No. US 2003/0053638 A1** in view of the ***Applicant's Admitted Prior Art***.

Regarding claim 2,

In *paragraph [0036]*, Yasuhara teaches a remote operation unit (14) for operating the rear controller (3) of the acoustic device, reading on “for operating the acoustic device remotely”; and

In **Figure 9**, Yasuhara teaches an acoustic device according to claim 1, further comprising: an external connection unit (6) for externally connecting an electronic device (4) having a remote operation unit (14), wherein the control unit (2) includes a control unit i.e., switch, for controlling the mode setting unit (22 & 23) so that the power source of the acoustic device may be turned ON in the second mode, when it detects the power ON demand signal through the external connection unit while the power source is OFF, see *paragraph [0057]*.

Yasuhara does not clearly teach that the power ON demand signal may also initiate from the remote operation unit

However, the Examiner notes the Applicant's Admitted Prior Art (the unchallenged Official Notice of the last Office Action) that the initiation of an ON/OFF Power demand signal from the remote operation unit (14) is well known in the art and

would have been obvious to include for the purpose of permitting the user to activate/deactivate the rear controller from a distance.

Regarding claim 4,

In *paragraph [0042-0043]*, Yasuhara teaches an acoustic device according to claim 2, wherein the power ON demand signal obtained through the external connection unit is output from the electronic device in response to the power ON of the electronic device.

Regarding claim 6,

In *paragraph [0057]*, Yasuhara teaches an acoustic device according to claim 2, wherein the power ON demand signal obtained through the external connection unit is output from the electronic device in response to the insertion of a recording medium into the electronic device.

3. **Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Yasuhara (Pub. No. US 2003/0053638 A1)** in view of **Eggers et al. (US 5,910,996)**.

YASUHARA teaches the acoustic device according to claim 1, wherein the first output unit includes a first speaker (**see any one of the two front speakers "10" in figure 9**) and a second speaker (**see any one of the two rear speakers "11" in figure 9**), Wherein the second mode includes: A first sub-mode in which the second speaker "11" of the first output unit is in a muted state and the first speaker "10" is in an output

state, and wherein the control unit (“80” in figure 9) controls the mode setting unit (23) to set the first mode or the second mode when the power supply to the acoustic device is turned on by the first operation unit.

Yasuhara fails to expressly teach a second sub-mode wherein both the first “10” and second “11” speakers are in a muted state, as claimed.

EGGERS teaches an audio program system comprising a first output unit including a first speaker (see any one of speakers “39”) and second speaker (see any one of speakers “40”). Eggers further teaches that first and second speakers may be selectively muted, individually or both together, such that output from the “first output unit” (39, 40) may be wholly muted (see discussion of “19b” in column 4, lines 53-55).

It would have been obvious for one of ordinary skill in the art at the time of the invention to alter the device of Yasuhara per the disclosure of Eggers such that both front and rear speakers of the “first output unit” of Yasuhara may be selectively muted in instances where only users of the headphone speaker unit desire audio output.

Response to Arguments

- a. In response to Applicant’s Arguments that **Yasuhara Fails To Teach a special dual mode in which the front speaker also becomes muted, and therefore fails to teach the special dual mode of the claimed invention:**

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies

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(i.e., a dual mode in which the front speaker also become muted) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant has not expressly recited in the claims that when power is turned on by the second operation unit, the **front** speaker become muted. Applicant's claims only recite that a first output unit is controlled to be in a muted state when power to the acoustic device is turned on by the second operation unit.

The Examiner has previously indicated that rear speakers (11) are interpreted as corresponding, at least in part, to the "first output unit", and has further indicated that paragraphs [0122] of Yasuhara teaches muting speakers (11) when the device is turned on by the second operation unit (any one of "22" in figure 3, or "4" in paragraph [0057]). The rejection is therefore maintained.

b. In response to Applicant's argument that **Since Both Front (10) And Rear (11) Speakers Of Yasuhara Are Not Muted When The Device Is Turned On By The Second Operation Unit, The Reference Fails To Meet The Claimed Limitation Requiring That First Output Unit Is Controlled To Be In A Muted State When Power To The Acoustic Device Is Turned On By The Second Operation Unit.**

The Applicant's claims do not expressly define the "first output unit" as comprising both *front* and *rear* speakers. Therefore, the Examiner may fairly interpret

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the "first output unit" of the claims as corresponding to the combination of speakers "10" and "11"; speakers "10", only; or speakers "11", only.

As detailed in the above rejection, the Examiner has interpreted the "first output unit" of the claims as corresponding to the combination of front speakers "10" and rear speakers "11", a total of four speakers. Since the muting operation of Yasuhara is controlled so as to affect the two rear speakers of the "first output unit", the Examiner maintains that the "first output unit" is controlled to be in a muted state, as claimed. In other words, the "first output unit" is controlled such that two of its four speakers are operating in a muted state, thus fairly meeting the claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIONNE H. PENDLETON whose telephone number is (571)272-7497. The examiner can normally be reached on 10:30-7:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Dionne H Pendleton/
Examiner, Art Unit 2627

/Wayne Young/
Supervisory Patent Examiner, Art Unit 2627